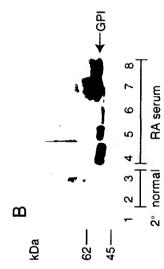


Fig. 1A

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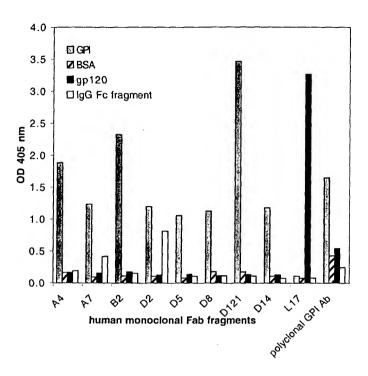


Fig. 2

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FIG. 3AL Light Chain Variable AA Sequences

	PKLLIY PKLLIY PRLLIY	PKLLIY	PRLLIY	PRLLIY	PRLLIY	FR4	FGQGTKLEIKRTVA FGGGAKVGIRRTVA FGQGTKVEIKRTVA	FGQGTKLEIKRTVA	FGQGTRLEIKRTVA	FGQGTRLEIKRTVA	FGQGTKVEIKRTVA
FR2	WYQQKPGQPPKLLIY WYQLKPGKAPKLLIY WYQQKPGQAPRLLIY	WYQQKPGQPPKLLIY	WYQQRPGQAPRLLIY	WYQQKPGQAPRLLIY	WYQQKPGQAPRLLIY	CDR3	QQYYDSYT QQLNSYPLT QQYGSSPRT	QQYYDSYT	QQYDNVPDT	QQYGTSPL	QQYGSSPRT
CDRI	KSSQSVFYTSNNKNYLA RASQGISSYLA RASQSVSSSYLA	KSSQSVFYTSNNKNYLA	RASQSVSSSYLA	RASQSVSSSYLA	RASQSVSSSYLA		GVPDRFSGSGSGTDFTLTISSLQAEDVAVYYC GVPSRFSGSGSGTEFTLTISSLQPEDFATYYC GIPDRFSGSGSGTDFTLTISRLEPEDFAVYYC	GVPDRFSGSGSGTDFTLTISSLQAEDVAVYYC	FTISSLQPEDTGTYYC	LTISRLEPEDFAVYYC	LTISRLEPEDFAVYYC
FR1	PDSLAVSLGERATINC PSFLSASVGDRVTITC PGTLSLSPGERATLSC	PDSLAVSLGERATINC	PGTLSLSPGEGATLSC	PGTLSLSPGEGATLSC	PGTLSLSPGERVTLSC	FR3	GVPDRFSGSGSGTDFTLTISSLQAEDVAVYY GVPSRFSGSGSGTEFTLTISSLQPEDFATYYC GIPDRFSGSGSGTDFTLTISRLEPEDFAVYYC		GIPDRFSGSGSGTDFSFTISSLQPEDTGTYYC	GIPDRFSGSGSGTDFTLTISRLEPEDFAVYYC	GIPDRFSGSGSGTDFTLTISRLEPEDFAVYYC
SEQ ID NO:	1 P P 2 2 P P P P P P P P P P P P P P P	4 E	5 E	9	7 I	CDR2	WASTRES AASTLQS GASSRAT	WASTRES	GASSRAT	GASSRAT	GASSRAT
Name	A4 D2 D121	B2	D14	D5	A7	Name cont'd	A4 D2 D121	B2	D14	D5	A7

FIG. 3AH Heavy Chain Variable AA Sequences

	T D	0 10		r.h	Jene				
	TESVKC	AQSFQI ADSVKC	RVFGS	4QKFQC	VH gene	VH3 VH3 VH3	VH1 VH3	VH4	VH1
CDR2	LLSSDGSNKFYIESVKG TM. VI.YNK.Y.AD	RINPTGGGVSLAQSFQD RISGNSGSTFYADSVKG	RIYGRGTTNYNRVFGS	GIIPPFGPVNYAQKFQG	FR4	WGQGTLVTVSS	WGQGTVVTVSS WGQGTTVTVSS	WGQGIVVNVFS	WGKGTTVTVSS
FR2	WVRQAPGKGLEWVA	WVRQAPGQGLQWMG WVRQAPGKGLEWVS	WVRQPVGKGLEWIG	WVRQAPGQGLEWMG	CDR3	SLVGTTAFNY .EAD. .I	PRFNMIREPLDL DLSSGAYYYYGMDV	DKGSEYSYFDP	VAYDGSGYYNNIPKIYYYSYMD V
CDR1	SHGSH TM. .YTF.	GHHIH	GDSYFWS	RYAIS		SLVGTTAFN .EAD .I	PRFNM DLSSG	DKGSE	VAYDG V
FR1	GGGVVQPGRSLKLSCAASGFTFSAWLRV	GAEVRKPGTSVRISCRASGNIFT GGGLVQPGGSLRLSCATSGFIFN	GPGLVRPSQTLSLTCPVSPGSIK	GAEVKKPGSSVKVSCRASGGTFS	FR3	RFTISKDNSKNTLYLQMNSLRIDDTAVYYCAI	RVSLTRDRSSNTVFLELSGLTEEDTALYFCAR RFTISRDNSKNTAFLRMNSQRAEDTAVYYCAK	RVSMSVDMSRSQFFLELRDVTAADTAVYYCAR	RVTITADDSTNTAYMGLSSLRSGDTAVYYCAR
SEQ ID	10	11 12	13	14		RFTI	RVSL	RVSM	RVTI
Name	A4 D2 D121	B2 D14	DS	A7	Name	A4 D2 D121	B2 D14	DS	A7

FIG. 3B

CDR2 LLSSDGSNKFYIESVKGTM. VI.YNK.Y.AD	RINPTGGGVSLAQSFQD ISST.YKG RISGNSGSTFYADSVKG ASGY	RIYGRGTTNYNRVFGS	GIIPPFGPVNYAQKFQG
FR2 WVRQAPGKGLEWVA	WVRQAPGQGLQWMG E WVRQAPGKGLEWVS	WVRQPVGKGLEWIG .IA	WVRQAPGQGLEWMG
CDR1 SHGSH TM. .YTF.	GHHIH SYYMH SYAMN	GDSYFWS SGY	RYAIS S
FR1 GGGVVQPGRSLKLSCAASGFTFSAW.LR.V	GAEVRKPGTSVRISCRASGNTFTKAKVKY GGGLVQPGGSLRLSCATSGFIFN	GPGLVRPSQTLSLTCPVSPGSIK	GAEVKKPGSSVKVSCRASGGTFS
SEQ ID NO: 8 9 10	11	13	14
<u>Name</u> A4 D2 D121 DP-46	B2 DP-7 D14 VH26	D5 IGHCAK	A7 VH1-69

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FIG. 3B CONT'D

Name cont'd	FR3	CDR3	FR4	VH gene
A4	RFTISKDNSKNTLYLQMNSLRIDDTAVYYCAI	SLVGTTAFNY	MGQGTLVTVSS	VH3
D2	RLSPETN	.EAD.		VH3
D121	VE	I.		VH3
DP-46	R			
B2	RVSLTRDRSSNTVFLELSGLTEEDTALYFCAR	PRFUMIREPLDL	MGQGTVVTVSS	VH1
DP-7	TMT.TSYMS.RSV.Y			
D14	RFTISRDNSKNTAFLRMNSQRAEDTAVYYCAK	DLSSGAYYYYGM	MGQGTTVTVSS	VH3
		DV		
VH26	\dots			
DS IGHCAK	RVSMSVDMSRSQFFLELRDVTAADTAVYYCARTIT.KNS.K.SS	DKGSEYSYFDP	WGQGIVVNVFS	VH4
A7	RVTITADDSTNTAYMGLSSLRSGDTAVYYCAR	VAYDGSGYYNNI	WGKGTTVTVSS	VH1
VH1-69	KSEE	FKLIXISIMDV		

R/S ratio	CDRs	12/5:2.4	4/5:0.8	7/0:>7.0	14/5:2.8	5/2:2.5	13/4:3.3	5/0:>5.0
R/S ratio	FRs	6/6:1.0	8/6:1.3	2/4:0.5	20/17:1.2	7/3:2.3	17/16:1.1	7/2:3.5
% nucleotide	homology	68	92	95	79	93	81	94
% amino acid	homology	98	87	91	<i>L</i> 9	87	73	06
Closest	Germline	DP-46	DP-46	DP-46	DP-7	VH26	IGHCAK	VH1-69
Clone		A 4	D2	D121	B2	D14	D5	A7

FIG. 4A CDR's Heavy Chain

CDR3	SLVGTTAFNY	. E A D.		PRFNMIREPLDL	DLSSGAYYYYGMDV	DKGSEYSYFDP	VAYDGSGYYNNIPKIYYYSYMDV		ID CDR3	QQYYDSYT	QQLNSYPLT	QQYGSSPRT	QQYYDSYT	QQYDNVPDT	QQYGTSPL	QQYGSSPRT
ID									SEQ NO:	50	51	52	53	54	22	26
	. 60 6	31	1	32	33	34	35	ht Chain								
2	LISSDGSNKFYIESVKG	VI Y NK Y AD	: : :	RINPTGGGVSLAQSFQD	RISGNSGSTFYADSVKG	RIYGRGTTNYNRVFGS	GIIPPFGPVNYAQKFQG	CDR's Light Chain	CDR2	WASTRES	AASTLQS	GASSRAT	WASTRES	GASSRAT	GASSRAT	GASSRAT
CDR2	LLSSDGSN	VI Y NK Y AD		RINPIGGG	RISGNSGS	RIYGRGTT	GIIPPFGP		SEQ ID NO:	43	44	45	46	47	48	49
SEQ ID	. 77 6	2.5	1	25	26	27	28			INKNYLA		Ą.	INKNYLA	e r	&	Ą.
CDR1	SHGSH	. HT.		GHHIH	SYAMN	GDSYFWS	RYAIS		CDR1	KSSQSVFYTSNNKNYLA	RASQGISSYLA	RASQSVSSSYLA	KSSQSVFYTSNNKNYLA	RASQSVSSSYLA	RASQSVSSSYLA	RASQSVSSSYLA
SEQ ID	15	17 17		18	19	20	21		SEQ ID NO:	36	37	38	39	40	41	42

Framework Regions, Heavy Chain

FR2	WVRQAPGKGLEWVA	WVRQAPGGGLQWMG WVRQAPGKGLEWVS	WVRQPVGKGLEWIG	WVRQAPGQGLEWMG	Q	80 WGNGIIVIVSS
SEQ ID NO:		65 66 8	67 W	, ke	or zero e e e	
FR1	GGGVVQPGRSLKLSCAASGFTFSAWLRV	GAEVRKPGTSVRI SCRASGNTFT GGGLVQPGGSLRLSCATSGFI FN	GPGLVRPSQTLSLTCPVSPGSIK	GAEVKKPGSSVKVSCRASGGTFS	FR3 RFTISKDNSKNTLYLQMNSLRIDDTAVYYCAI RLSPETN RVSLTRDRSSNTVFLELSGLTEEDTALYFCAR RFTISRDNSKNTAFLRMNSQRAEDTAVYYCAK RVSMSVDMSRSQFFLELRDVTAADTAVYYCAR	RVTITADDSTNTAYMGLSSLRSGDTAVYYCAK
SEQ ID	57 58 59	60 61	62	63	SEQ ID NO: 69 70 71 72 73	75

FIG. 4B cont'd

WYQQKPGQAPRLLIY WYQQKPGQAPRLLIY WYQLKPGKAPKLLIY WYQQKPGQAPRLLIY WYQQRPGQAPRLLIY WYQQKPGQPPKLLIY WYQQKPGQPPKLLIY FR2 Framework Regions, Light Chain SEQ ID NO: 88 86 92 93 4 91 PDSLAVSLGERATINC **PDSLAVSLGERATINC PGTLSLSPGEGATLSC** PGTLSLSPGEGATLSC **PGTLSLSPGERVTLSC PGTLSLSPGERATLSC** PSFLSASVGDRVTITC FR1 SEQ ID NO:

81 82 83

98

87

85

84

FR4	FGQGTKLEIKRTVA FGGGAKVGIRRTVA FGQGTKVEIKRTVA	FGQGTKLEIKRTVA	FGQGTRLEIKRTVA	FGQGTRLEIKRTVA	FGQGTKVEIKRTVA
SEQ ID NO:	102 103 104	105	106	107	108
FR3	GVPDRESGSGSGTDFTLTISSLQAEDVAVYYC GVPSRFSGSGSGTEFTLTISSLQPEDFATYYC GIPDRESGSGSGTDFTLTISRLEPEDFAVYYC	GVPDRFSGSGSGTDFTLTISSLQAEDVAVYYC	GIPDRFSGSGSGTDFSFTISSLQPEDTGTYYC	GIPDRFSGSGSGTDFTLTISRLEPEDFAVYYC	GIPDRFSGSGSTDFTLTISRLEPEDFAVYYC
SEQ ID NO:	95 96 97	86	66	100	101

.

FIG. 5A

LIGHT CHAIN NUCLEOTIDE SEQUENCE OF ANTI-GPI ANTIBODIES

A4 - SEQ ID NO:112

GAACTACTTAGCTTGGTACCAGCAGAAACCAGGCCAGCCTCCTAAGTTGCTCATTTACTGGGCATCCACCCGGGAATCCGGGGGTCC CTGACCGATTCAGTGGCAGCGGGTCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGGCTGAAGATGTGGCAGTTTATTAC TGTCAGCAATATTATGATTCGTACACTTTTGGCCAGGGGACCAAGCTGGAGATCAAACGAACTGTGGCT

D2 - SEQ ID NO:113

CAGCTAAAACCGGGGAAAGCCCCTAAGCTCCTGATCTATGCTGCATCCACTTTGCAAAGTGGGGTCCCATCAAGGTTCAGGGTCCAGG CCATCCTTCCTGTCTGCATCTGTAGGAGACAGAGTCACCATCACTTGCCGGGCCAGTCAAGGCATTAGCAGTTATTTAGCCTGGTAT 1GGATCTGGGACAGAATTCACTCTCACAATAAGCAGCCTGCAGCTGAAGATTTTGCAACTTATTACTGTCAACAGCTTAATAGTT ACCCTCTCACTTTCGGCGGGGGCCAAGGTGGGGATCAGACGAACTGTGGCT

D121 - SEQ ID NO:114

GTACCAGCAGAAACCTGGCCAGGCTCCCAGGCTCCTCATCTATGGTGCATCCAGCAGGGCCACTGGCATCCCAGACAGGTTCAGTG CCAGGCACCCTGTCTTTGTCTCCAGGGGAAAGAGCCCCCTCTCCTGCAGGGCCAGTCAGAGTGTTAGCAGCAGCTACTTAGCCTG GCAGTGGGTCTGGGGACAGACTTCACTCTCACCATCAGCAGACTGGAGCCTGAAGATTTTGCAGTGTATTACTGTCAGCAGTATGGT AG CTCACCTCGGACGTTCGGCCAAGGGACCAAGGTGGAAATCAAACGAACTGTGGCT

B2 - SEQ ID NO:115

GAACTACTTAGCTTGGTACCAGCAGAAACCAGGCCAGCCTCCTAAGTTGCTCATTTACTGGGCATCCACCGGGGAATCCGGGGGTCC CTGACCGATTCAGTGGCAGCGGGTCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGGCTGAAGATGTGGCAGTTTATTAC CCAGACTCCCTGGCTGTGTCTCTGGGCGAGAGGGCCACCATCAACTGCAAGTCCAGGCCAGAGTGTTTTTTACACTTCCAACAATAA <u>IGFCAGCAATATTATGATTCGTACACTTTTGGCCAGGGGACCAAGCTGGAGATCAA ACGAACTGTGGCT</u>

FIG. 5A cont'd

D14 - SEQ ID NO:116

CAGGCACCCTGTCATTGTCTCCAGGGGAAGGAGCCACCCTCTCCTGCAGGGCCAGTCAGAGTGTTAGCAGCAGCTACCTAGCCTG GAAGTGGATCTGGGACAGATTTCAGTTTCACCATCAGCAGTCTGCAGCCTGAAGATACTGGGACATATTACTGTCAACAATATGAT AATGTCCCTGACACTTTTGGCCAGGGGACCAGGCTGGAGATCAAACGAACTGTGGCT

D5 - SEQ ID NO:117

GTACCAGCAGAAACCTGGCCAGGCTCCCAGGCTCCTCATCTATGGTGCATCCAGTAGGGCCACTGGCATCCCAGACAGGTTCAGTG CCAGGCACCCTGTCTTTGTCTCCAGGGGAAGGAGCCACCCTCTCCTGCAGGGCCAGTCAGAGTGTTAGCAGCAGCTACTTAGCCTG GCAGTGGGTCTGGGACAGACTTCACTCTCACCATCAGCAGACTGGAGCCTGAAGATTTTGCAGTGTATTACTGTCAGCAGTATGGT ACCT CACCCCTCTTCGGCCAAGGGACACGACTGGAGATTAAAACGAACTGTGGCT

A7 - SEQ ID NO:118

GTACCAGCAGAAACCTGGCCAGGCTCCCCAGGCTCCTCATCTATGGTGCATCCAGCAGGGCCACTGGCATCCCAGACAGGTTCAGTG GCAGTGGGTCTGGGACAGACTTCACTCTCACCATCAGCAGACTGGAGCCTGAAGACTTTGCAGTTTATTACTGTCAGCAGTATGGA CCAGGCACCCTGTCTTTGTCTCCAGGGAAAGAGTCACTCTCCTGCAGGGCCAGTCAGAGTGTTAGCAGGGTATTAGCAGG AGCTCACCTCGGACGTTCGGCCAAGGGACCAAGGTGGAAATCAAACGAACTGTGGCT

FIG. 5B

HEAVY CHAIN NUCLEOTIDE SEQUENCE OF ANTI-GPI ANTIBODIES

A4-H - SEQ ID NO:116

GCCGATTCACCATCTCCAAGGACAATTCTAAGAACACACTGTATCTGCAAATGAACAGCCTGAGAATTGACGACACGGCTGTCTAT GAGGCGTGGTCCAGCCTGGGAGGTCCCTGAAACTCTCCTGTGCAGCCTCTGGATTCACATTCAGTAGTCATGGCTCGCACTGGGTC CGCCAAGCTCCAGGCAAGGGGCTGGAGTGGGTGGCACTTTTGTCGTCTGATGGAAGTAATAAATTCTATATAGAATCCGTGAAGG TACTGTGCGATTTCCCTGGTGGGAACTACCGCTTTTAACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCA

D2-H - SEQ ID NO:117

CGATTCACCATCTCCAGAGACAATTCCAAGAACACGCTGTATCTGCAATTGAGCAGCCTAAGACCTGAGGACACGGCTGTCTATTA GGCGTGGTCCAAGCATGGAGGTCCCTAAGACTCTCTGTGTAGCCTGTGGATTCACCTTCAGTAGTCATACCATGCACTGGGTCCG TTGTACGAATTCCGAGGTGGGAGCTACCGCTTTTGACTACTGGGGCCCAGGGAACCCTGGTCACGTCTCCTCAG

D121-H - SEQ ID NO:118

GGGGAGGCGTGGTCCAGCCTGGGAGGTCCCTGAGACTTTTCCTGTGCAGCCTCTGGATTCACCTTCAGTTCCTATACTTTCCACTGG AGGGCCGATTCACCATCTCCCAGAGACAATTCCAAGAACACTCTATATCTGCAAATGAACAGCCTGAGAGTTGAGGACACGGCTGTT GTCCGCCAGGCTCCAGGCAAGGGGCTGGAGTGGGTGGCAGTTATATCATATGATGGAAACAAGAAATACTACGCAGACTCCGTGA TATTACTGTGCGATTTCCATAGTGGGAACTACCGCTTTTAACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTC



B2-H - SEQ ID NO:119

GGGGCTGAGGGTGAGGAGCCCGGGACCTCCGTGAGGATCTTTGCAGGGCATCTGGAAACACCTTCACTGGCCACCATATTCACTG CAGGACAGAGTCAGCCTGACCAGGGACAGGTCGTCCAATACAGTCTTCTTGGAACTGAGCGGCCTCACGGAGGAGGACACGGCCT GGTCCGCCAGGCCCCTGGACAAGGCCTTCAGTGGATGGGAAGAATCAACCCGACTGGCGGCGGCGTTAGTCTCGCACAGAGTTTC TATATITICTGTGCGAGGCCCCGATTTAACATGATCCGGGAACCTCTTGACCTCTGGGGCCAGGGGACAGTGGTCACCGTCTCCTCA

D14-H - SEQ ID NO:120

AAGGGCCGGTTCACCATCTCCAGAGACAATTCCAAGAACACGGCGTTTCTGCGAATGAACAGCCAGAGAGCCGAAGACACGGCCG TTTATTACTGTGCGAAAGATCTGTCGAGTGGTGCATACTACTACGGGATGGACGTCTGGGGCCAAGGGACCACGGTCACCGTC GGGGGAGGCTTGGTACAGCCTGGGGGGTCCCTGAGACTCTGTGCAACCTCTGGATTCATCTTTAACAGCTATGCATGAACTG GGTCCGCCAGGCTCCAGGGAAGGGGCTTGAGTGGGTCTCACGTATTAGTGGAAATAGTGGAAGCACATTCTACGCAGACTCCGTG

D5-H - SEQ ID NO:121

GGCCCAGGATTGGTGAGGCCATCACAGACCCTATCCCTCACCTGCACTGTCTCTCCAGGCTCCATTAAAAGGTGATAGTTACTTCTGG TCGGGAGTCGAGTCAGTATGTCAGTGGACATGTCCAGGAGTCAGTTTTTCTTGGAATTTGAGAGATGTGACCGCCGCAGACACGGCC AGCTGGGTCCGTCAGCCCGTAGGGAAGGGACTGGAGTGGATAGGGCGTATCTACGGCAGAGGGACTACCAATTACAACCGTGTTT GTCTATTACTGTGCGAGAGACAAGGGGTCCGAATACTCCTACTTTGACCCCTGGGGCCAGGGAATAGTGGTCAACGTCTTCTCA



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FIG. 5B CONT'D

A7-H - SEQ ID NO:122

ACGCACAGAAGTTCCAGGGCAGAGTCACGATTACCGCGGACGATTCCACGAACACACAGCCTACATGGGTCTGAGCAGCC GGGCTGAGGTGAAGACCTGGGTCCTCGGTGAAGGTCTCCTGCAGGGCTTCTGGAGGCACATTCAGCAGATATGCTA TGAGATCTGGGGACACGGCCGTGTATTACTGCGCGAGAGTGGCCTATGATGGTAGTGGCTATTACAACAATATCCCAA AGATCTACTACTACTCCTACATGGACGTCTGGGGCAAAGGGACCACGGTCACCGTGTCCTCAGC



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Mean±SD

Arthritis

Fig. 6

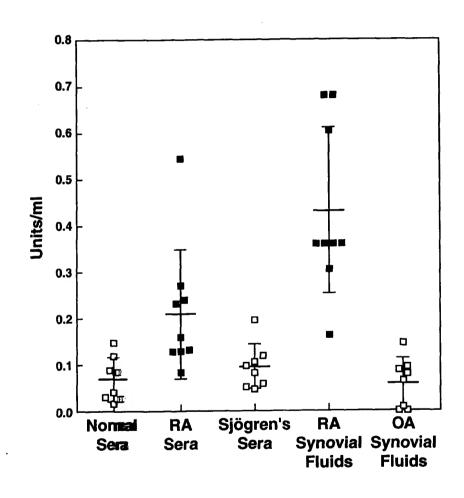
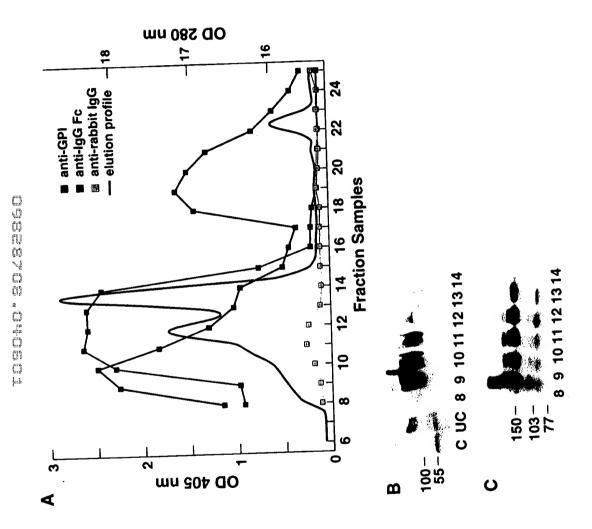


Fig. 7



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